

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 1/13/12 has been entered.

### ***Response to Remarks***

2. The applicant filed an RCE after allowance so that the four IDS submitted could be considered. The IDS submitted on 1/13/12 had the incorrect serial number so the applicant re-submitted the same IDS with the correct serial number on 1/19/12.
3. The applicant has submitted a supplemental amendment on 9/27/11 that places the case in condition for allowance.
4. The applicant filed a terminal disclaimer on 9/27/11 and it has been approved.
5. Claims 7,9 are cancelled.

### ***Information Disclosure Statement***

6. The information disclosure statement filed 1/17/19 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the

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application file, but the information referred to therein has not been considered. The NPL document – Search Report (SR) of 2008-8-8 issued in corresponding European Patent Application No. 05703396.1 of related application SN 10/585654 was not found among the prior art submitted on 1/13/12 and 1/19/12.

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lyle Kimms (Reg. No. 34,079) on 10/6/11.

**The abstract is to be amended so that it is one paragraph:**

### **ABSTRACT**

A speaker array is provided which can increase the orientation when reproducing front channels of a surround sound, increase the density effect, improve the narrow directivity when reproducing a stereo sound and increase the selectivity in selecting reproduction methods which match setting environments. When reproducing a stereo sound by a speaker array for reproducing a surround sound by converting a sound into a beam of sound, the speaker array is divided into a sound

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reproducing region for an L system and a sound reproducing region for an R system at a central portion thereof. Then, each of the reproducing regions so divided is further divided into bands. In addition, since a high frequency reproducing region has a high directivity and a strong orientation when the sound is attempted to be reproduced simultaneously by the plurality of speakers as is described above, a reproducing region is limited to part of the reproducing regions. Additionally, when stereo reproducing a front system of a surround sound source, the center orientation is improved by implementing different processings for the L, R systems and C. By adopting this configuration, it is possible to reproduce a sound with a natural stereo effect with no high frequency sound converted into a beam of sound.

***Allowable Subject Matter***

1. Claims 1-6,8,10-13 allowed.
2. The following is an examiner's statement of reasons for allowance: Regarding the independent claims, the prior art or combination thereof fails to disclose or make obvious the invention as a whole.
3. Claims 2-4,6,8 are allowed due to dependency on claims 1 and 5.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVONA FAULK whose telephone number is (571)272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devona E. Faulk/  
Primary Examiner, Art Unit 2614